

The Role of Business Consulting in Creating Knowledge and Formulating a Strategy of Development in Polish Micro-Enterprises*

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The paper presents the role of business consulting in the management of micro-enterprises in the context of creating knowledge and formulating a development strategy. It discusses the importance of determinants and the impact of business consulting as a factor in reducing the knowledge gap. The results of research conducted in 406 Polish micro-enterprises confirm the hypothesis of the existence of positive correlations between business consulting and knowledge along with development strategies, as well as between knowledge and strategy. It was also noted that advanced knowledge on the part of managers is a condition for the efficient use of business consulting and the development of a developmental orientation of micro-enterprises.

Im vorliegenden Artikel wird die Rolle von wirtschaftlicher Beratung bei der Verwaltung von Kleinunternehmen im Rahmen der Vergrößerung des Wissens von Managern und der Erstellung von Managementstrategien für Unternehmen dargestellt. Diskutiert wird die Rolle von Unternehmensmerkmalen und der Eigenschaften der das Management leitenden Personen sowie die Nutzung von Beratungsdienstleistungen als Faktoren zur Reduzierung von Wissenslücken. Die Ergebnisse einer empirischen Studie unter Verwendung von Daten zu polnischen Kleinunternehmen bestätigen die Hypothese von der Existenz eines positiven Zusammenhangs zwischen der Tatsache der Inanspruchnahme von Beratungsdiensten und dem Wissensniveau der Manager sowie vom Einfluss vorteilhaften Wissenstransfers auf die Wahrscheinlichkeit des Besitzes einer Strategie. Es stellt sich zudem heraus, dass ein hohes Maß an Wissen beim Management eine Voraussetzung für den effizienten Einsatz von Beratungsdienstleistungen und die Schaffung einer entwicklungsorientierten Ausrichtung in Kleinunternehmen ist.

Keywords: sector of micro-enterprises, knowledge of management, development strategy, business consulting, discrete choice model.

JEL classification: C35, L26

Introduction

In the literature devoted to management in the sector of micro-enterprises (enterprises employing fewer than 10 persons; European Commission 364/2004), business consulting is very often mentioned as an important form of external support in reducing barriers of growth and developing management. Recommendations concerning the process of management may be acquired from profes-

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sional and informal advisors and may influence the development of knowledge and capabilities of managers and help in formulating efficient development strategies. In consequence, business consulting may improve the level of the quality of management and may help managers in overcoming obstacles and barriers of development (Bennett/Robson 2003; Johnson et al. 2007).

The issue of the role and features of business consulting for micro-enterprises is still poorly recognised in the literature (Robson/Bennett 2000; Głodek/Łobacz 2015). The scope and the intensity of using business consulting is differentiated due to factors associated with the industry, location, scale of enterprise, age of enterprise, developmental attitude, development of the market of advisory services, support policy, etc. (Webber et al. 2010). The results of empirical research are ambiguous. In some research, a positive impact of business consulting on the quality of management and financial results of an enterprise is shown (McLarty 2005; Delanoe 2013). On the other hand, some authors point to the limited impact of business consultants on the developmental orientation of managers (Bennett/Robson 2003; Yusoff et al. 2010). To the authors' best knowledge, the issue of the role of managers' features and features of micro-enterprises in decisions about using business consulting has not been intensively explored, especially in the case of transition economies.

Though transition opened opportunities for entrepreneurship, the heritage from the era of central planning had a negative impact on the development of entrepreneurship in Central and Eastern Europe. Among the obstacles of entrepreneurial activity, financial, institutional, social and cultural factors are mentioned (Estrin/Mickiewicz 2010; Surdej/Wach 2012). Therefore, rates of entrepreneurship in these countries are lower than in most developed and developing market economies. Though micro-enterprises represent 95% of all enterprises in Poland, about 25% of these entities go bankrupt before the end of the first year of their existence. Since their contribution to total GDP equals about 30% and employees in micro-enterprises represent almost 40% of the whole Polish workforce, micro-enterprises are a very important sector in the Polish economy. It seems that using efficient business consulting and possessing an appropriate development strategy are crucial for the survival of micro-enterprises and their achieving market success. Therefore, the analysis of the role of business consulting on the management of micro-enterprises seems to be particularly important. The results of the analysis may provide useful implications for the support policy in Poland and other transition economies which are at the similar level of development as Poland (Smallbone/Welter 2010; Chepurensko 2011).

This paper is devoted to explaining the role of business consulting in the management of micro-enterprises in the context of the building of knowledge and strategy development. We contribute to the literature by presenting a direct and indirect impact of business consulting on the developmental orientation of mi-

cro-enterprises in a transition economy. In the second part of this paper, the results of empirical investigation are presented. On the basis of the data concerning the use of business consulting and its impact on the level of knowledge and the formulating of the developmental strategy for 406 Polish micro-enterprises, parameters of a multivariate ordered choice model are estimated. The results obtained for Polish micro-enterprises are compared with the results obtained by other authors for other countries.

Literature review

Features of micro-enterprises

Micro-enterprises possess a number of specific characteristics which differentiate them from large ones. The differences are especially important in terms of resources and management (Anderson/Ullach 2014). In contrast to larger enterprises, most micro-enterprises are in their initial phases and only a small number of them expand (Garnsey et al. 2006). Therefore, a micro-enterprise is not simply a scaled version of the large one (Storey 1994).

The most specific features of micro-enterprises include limited resources, the dominant role of the owner in the company's management and the use of intuition in the management process (Jaoun/Lasch 2015). According to the resource-based approach, resources and capabilities become a potential source of competitive advantage of enterprises (Teece 2014; Blackburn et al. 2013). Limited resources and capabilities can constitute a barrier to creating a sustainable competitive advantage of smaller enterprises. This mainly concerns micro-enterprises, many of which for this reason do not succeed or even go bankrupt due to very limited resources, including the knowledge and management capabilities which are necessary for doing business efficiently (Dyer/Ross 2007). They have problems with formulating an appropriate plan of work or a development strategy and building the dynamic capabilities of an enterprise (Vos 2005).

The theory of small business management distinguishes two approaches to management (Chaston 2010). The first approach is based on transferring the patterns of management of large companies, while the other approach points to gathering examples of good management practices in the small business sector and adapting them to the conditions of a specific company as the right model. It seems that the former approach applies particularly to micro-enterprises due to their specificity and the great variety of organisational behaviours, among others, in relation to the creation of knowledge in the area of management and planning (Jaoun/Lasch 2015).

Key decisions of a micro-enterprise are very often made by its owner. His/her personal qualities, level of knowledge, experience and capabilities determine the management style and the probability of success or failure (Gray/Mabey 2005; Surdej/Wach 2012). The most characteristic features associated with the man-

agement in micro-enterprises are: (i) a low level of knowledge and capabilities, and low propensity for learning, (ii) failures in the development strategy, (iii) fear of employing professional managers, (iv) concentration on operational issues (Bartlett/Bukovic 2001). As a rule, the process of management in micro-enterprises is aimed at dealing with current tasks and does not create positive circumstances for development. An important problem for micro-enterprises is access to data and their appropriate analysis, especially lack of time for deep analysis, incorrect interpretation of signals and limited financial resources (see e.g.: Beaver/Jennings 2005).

Knowledge and development strategy in micro-enterprises

The creation of knowledge concerning management in micro-enterprises differs substantially from solutions applied in large companies (Supyuenyong et al. 2009). Micro-enterprises are forced to acquire knowledge from external sources, since they are unable to create departments responsible for knowledge management within (Hutchinson/Quintas 2008). The use of external sources of knowledge by micro-enterprises may help them in overcoming the problem of “organisational isolation of knowledge” (Labas et al. 2015). Their propensity and capability of absorbing external knowledge may improve the quality of management and the developmental orientation of enterprises (Sciascia et al. 2014; Moilanen et al. 2014).

Formulating a development strategy is the process of planning and carrying out activities which are aimed at realising a desired objective under specific conditions (Anderson/Atkins 2001). A development strategy generally consists of the activities of management, managers’ approach to problems which should be solved, markets (segments, distribution channels) and competences (resources, tangible and intangible assets, know-how). Strategic planning and the existence of a development strategy may be crucial for enterprises to achieve market success, since they may decrease the level of uncertainty by defining clearly their strengths and weaknesses, markets, products and processes. On the other hand, a certain lack of flexibility in relation to planning can potentially limit enterprises’ abilities to respond to market change, important especially for smaller companies (Richbell et al. 2006). The results of other studies show that micro-enterprises that have strategic planning and a development strategy are more efficient (Singh/Garg 2008; Blackburn et al. 2013). However, they face a number of barriers, which means that planning in micro-enterprises differs significantly from planning in larger ones. Differences are due to lack of time, lack of resources, particularly in the area of management, lower experience of companies and the less stable environment of microenterprises (Vos 2005).

Business consulting

One of the external support elements of micro-enterprises is business consulting. It is aimed at helping managers and enterprises to complete objectives. It seems that business consulting helps solve problems in management, identify new chances, learn and implement changes (Ajmal et al. 2009; Labas et al. 2015). It encompasses a transfer of information concerning operational and strategic management and acts as a potential source of a competitive advantage (Blackburn et al. 2013). Business consulting is provided by professional and informal advisors and has different forms, providing general knowledge, tutorials, coaching, and mentoring (Jay/Schaper 2003). They are provided by, among others, accountants, specialists from banks, trade partners and consulting firms. Since, as a rule, the management in micro-enterprises has an informal character, entrepreneurs (especially in the case of newly founded and family firms) often use informal, very simple and cheap sources of business consulting (Viljamaa et al. 2011).

A very extensive classification of business consulting exists in the literature. According to the first type of division, we distinguish general types of consulting for micro-enterprises in the initial state of development, and specialist consulting, which is oriented towards more mature enterprises (Stawasz/Ropega 2014). According to the criterion of the impact of consulting on financial results of enterprises, business consulting is divided into transactional, which encompasses information supporting current activities, and strategic, which is aimed at assistance in business development (North et al. 2011).

The advantages of using business consulting in micro-enterprises should be divided into “soft” ones, which result from support in solving problems, formulating a strategy of development, and improving management knowledge, and “hard” ones, which are associated with improving competitiveness, an increase in market share, and gains (Ramsden/Bennett 2005). From the point of view of the impact of business consulting on the decision about formulating a development strategy, we distinguish direct and indirect impact. Direct impact concerns advisory services aimed at improvements in innovativeness, growth, and an increase in the competitiveness of an enterprise. Indirect impact is associated with increasing managers’ level of knowledge, which helps in formulating strategies of development. It is also associated with the positive effects of using business consulting in the relation between the level of knowledge and formulating a development strategy (Soriano 2003).

Although the use of business consulting by enterprises is well described in the literature, the results of empirical investigations are ambiguous. Some authors (e.g.: Bennett/Robson 2003; McLarty 2005; Gill/Bigler 2012) show that external business consulting seems to be necessary for micro-enterprises, helps in overcoming barriers and leads to market success. This is due to the fact that micro-

enterprises have limited resources of knowledge, capabilities and experience, which creates difficulties in solving existing problems (Jay/Schaper 2003; Blackburn et al. 2013). On the basis of the resource-based approach, it can be said that using external business consulting by micro-enterprises is stimulated by the gap between internal knowledge resources and resources which are necessary for business success (Johnson et al. 2007). In terms of factors having an impact on the propensity for using business consulting, elements such as the branch of industry, technological advancement and market specificity are mentioned (Mole et al. 2013). Among the determinants of the use of business consulting, the level of knowledge and the propensity for having a development strategy, the following elements should be mentioned: features of the person managing (age, education, position in the enterprise), and features of the enterprise (scale, age, location, industry branch, legal form, business profile). These factors and the relations between them differentiate the sector of micro-enterprises (Boter/Lundstrom 2005; Berry et al. 2006; Johnson et al. 2007).

In addition to the benefits for micro-enterprises arising from the use of business consulting, there are also problems and challenges. The use of template solutions by business consultants, the relatively large costs of using advisory services, the maladjustment of solutions used by business consultants to the specifics of the enterprise, the low awareness of the advantages of using business consulting, problems with evaluating the quality of external consulting, problems with formulating demand for business consulting, problems with choosing a good consultant, problems with absorbing knowledge, fear of losing control of the company and disclosing limited powers in the management are all considered important barriers in using business consulting (Kailer/Scheff 1999; Yusoff et al. 2010). As a rule, these barriers are much more important in micro-enterprises than in larger ones. These barriers result in a low rate of using these services in micro-enterprises employing up to 9 persons than in larger ones. For example, studies conducted in the UK in 1990 indicate that business consulting was used by 17-23% of the surveyed micro-enterprises, 46% of companies employing 50-99 people and 54% of companies employing more than 250 people (Bennett/Robson 1999). Similar conclusions can be drawn from research conducted in Poland in 2000: business consulting was used by 17% of the studied enterprises employing up to 50 people, 30.4% of enterprises employing 51-150 people and 33.8% of enterprises employing 151-250 people (Suszyński 2002).

The impact model

The relations between the use of business consulting, the level of knowledge and the existence of a development strategy seem to be especially interesting. The correct identification of these relations should provide knowledge about factors determining the scope and intensity of the use of business consulting by micro-enterprises. The relation between having a development strategy and the level of

knowledge means that appropriate management knowledge seems to be necessary for creating a development strategy. Using business consulting may perform three functions: (i) to have a positive impact on the reduction of the knowledge gap and indirectly determine the existence of a development strategy, (ii) directly participate in creating a strategy (iii) aid managers in creating a strategy. Managers' awareness plays a key role in this process. It has an impact on the scope and intensity of including external advisory services in the process of knowledge acquisition and strategy creation (Mole et al. 2013).

As shown above, the aim of the paper is to determine the role of business consulting in management in the context of management knowledge and development strategies in Polish micro-enterprises. The impact model is shown in Figure 1. There are two main and two auxiliary hypotheses posed in the paper:

Hypothesis 1: business consulting has a positive impact on the development of knowledge in the area of management,

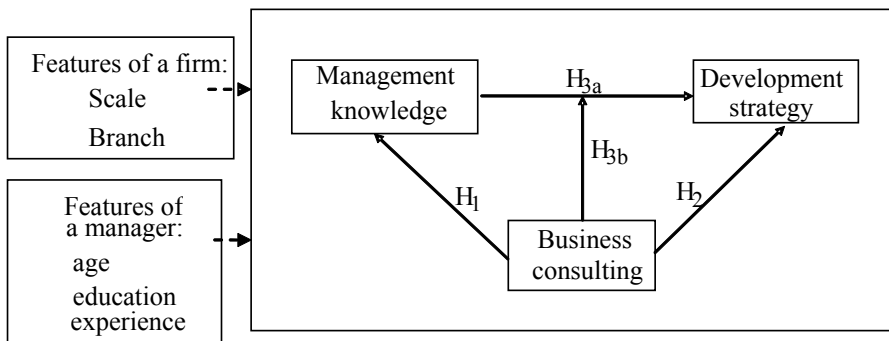
Hypothesis 2: business consulting has a positive impact on the formulation of development strategies,

Hypothesis 3a: there exists a positive impact of management knowledge on the formulation of development strategies,

Hypothesis 3b: there exists a moderating impact of business consulting on the relationship between management knowledge and development strategies.

Selected factors related to the enterprise and related to the manager's personal qualities are treated as so-called exogenous factors.

Figure 1. Impact model.



Data and descriptive statistics

The paper uses a base of 406 randomly selected micro-enterprises employing less than 10 persons and operating in the whole of Poland. We used the stratified random sampling method in order to select the representative sample of micro-enterprises. The percentage of micro-enterprises in the sample is very close to the percentage of micro-enterprises in the population according to the legal form, sector and geographical location. Surveys were sent via the Internet and the response rate was 0.4. The study was conducted by the authors in 2012 in the framework of a project entitled “Business Consulting in Micro-enterprises” (University of Lodz).

The average age of the surveyed enterprises was 16 years in 2012, hence they were mature entities. The average rate of employment was 4 people. Service enterprises (74.8%) were the largest group, followed by commercial enterprises (59.9%) and manufacturing enterprises (33.3%). 39% of the micro-enterprises were managed by women.

The managers had extensive experience in running a business as the average period of the manager’s work was 16.7 years, regardless of the scale and the age of the enterprise. The managers were also relatively well educated, as 52.1% of them had a university education. 2/3 of the managers had a technical education, 12.8% had an education in economics, while 19.5% had a background in humanities and other kinds of education.

To measure the managers’ knowledge of management, self-assessment in the form of a 5-point Likert scale was used (where 1 point signified a very low level of knowledge and 5 points represented a very high level of knowledge). The data presented in Table 1 indicate a good opinion of the managers about their skills in the area of conducting business activities. It is probably connected with their long-term management experience and high level of education. We are aware of the fact that the respondents might not have assessed their knowledge critically enough. However, using an appropriate number of observations should minimise the bias associated with the lack of objectivity of the respondents. Moreover, the results depend on differences in the level knowledge of managers and not on the state of knowledge. For example, if each respondent was too optimistic and overestimated his/her knowledge by adding 1 point, the results concerning the relation between using business consulting, the level of knowledge and the fact they possess a strategy would be the same as if they had correctly assessed their knowledge.

71% of the enterprises had a formal or informal development strategy created in accordance with the principles of management, i.e. specifying the basic objectives of the enterprise for a period of at least one year in the area of marketing and sales, financial management and planning as well as organisation. The re-

maining 29% of the enterprises did not have a development strategy and the managers' main objective was the survival of the enterprise.

Almost 2/3 of the enterprises did not use any business consulting services in 2010-2012. The enterprises pointed to the following reasons for this state of affairs: too high costs of services, a lack of time for cooperating with service providers, and a lack of information about the consulting services offered (see Table 1). Half of the managers believed that they could independently solve problems in the area of management.

More than 1/3 of the surveyed enterprises, i.e. 145 entities, used professional business consulting. 35% of the enterprises made use of those services on a permanent basis and 65% only occasionally. In terms of the subject of the services, it was concerned primarily with services in the field of marketing and sales (95.6% of the enterprises using any kind of business consulting), also in the fields of strategic management, financial management and planning and organisation was reported by 84.5%, 70.7% and 62.6% of the enterprises, respectively. Only about 30% of the enterprises (using business consulting in general) reported the use of consulting in the fields of production management, logistics and personnel management.

Table 1: Basic data.

Assessment of knowledge	%	Employment	% of enterprises with strategy	Reasons for not using consulting	%
Low	19.0	1	52.6	High costs	92.3
average	44.8	2-6	68.3	Lack of time	80.0
High	36.2	7-9	84.1	Lack of information	70.9
				Independence	49.8
				Lack of offers	32.6
				Reluctance to disclose the enterprise's secrets	31.4
				Others	3.3

Source: Own calculations.

Since endogenous variables and most of the exogenous variables used in the empirical research have a discrete character, the C-Pearson contingency coefficient should be calculated in order to evaluate the strength of the relationship between them. Table 2 presents these values for some pairs. The results show a strong relationship between dependent variables (especially for the 'knowledge-strategy' pair) and for some pairs consisting of dependent and independent variable.

Table 2. Values of the C-Pearson contingency coefficient for endogenous and some exogenous variables.

	Evaluation of knowledge	Using business consulting	Possessing development strategy	Legal form	Managing person	Gender	Level of education	Kind of education
Evaluation of knowledge	1	0.182	0.439	0.157	0.129	0.154	0.310	0.212
Using business consulting		1	0.211	0.041	0.207	0.004	0.192	0.034
Possessing development strategy			1	0.175	0.119	0.027	0.284	0.060
Legal form				1	0.372	0.107	0.158	0.135
Managing person					1	0.190	0.230	0.107
Gender						1	0.078	0.294
Level of education							1	0.264
Kind of education								1

Source: Own calculations.

Results of the empirical investigation

In order to take into account the discrete character of our 3 main categories (business consulting, management knowledge and development strategy), the relations between them, the issue of their endogeneity and 6 variants of using business consulting (organisation and planning, personnel management, marketing and sales, finance management, production and logistics management, strategic management), we consider the estimation of the parameters of the following multivariate discrete choice model (Rivers/Vuong 1988).

$$BC_{i,k}^* = \mathbf{x}_i^{BC} \boldsymbol{\beta}^{BC} + \varepsilon_{i,k}, \quad \text{for } k=1,2,3,4,5,6,$$

$$[\varepsilon_{i1}, \varepsilon_{i2}, \varepsilon_{i3}, \varepsilon_{i4}, \varepsilon_{i5}, \varepsilon_{i6}]^T \sim N(\mathbf{0}, \boldsymbol{\Sigma}),$$

$$BC_{i,k} = I\{BC_{i,k}^* \geq 0\} \quad \text{for } k=1,2,3,4,5,6, \quad (1)$$

$$KN_i^* = \mathbf{x}_i^{KN} \boldsymbol{\beta}^{KN} + \sum_{k=1}^6 \gamma_{1,k} BC_{i,k}^* + \varepsilon_{2i}, \quad \varepsilon_{2i} \sim N(0,1),$$

$$KN_i = \begin{cases} 0 & \text{if } KN_i^* < \mu_1, \\ 1 & \text{if } \mu_1 \leq KN_i^* < \mu_2, \\ 2 & \text{if } \mu_2 \leq KN_i^* < \mu_3, \\ 3 & \text{if } KN_i^* \geq \mu_3, \end{cases} \quad (2)$$

$$ST_i^* = \mathbf{x}_i^{ST} \boldsymbol{\beta}^{ST} + \sum_{k=1}^6 \gamma_{2,k} BC_{i,k}^* + \gamma_3 KN_i^* + \sum_{k=1}^6 \gamma_{4,k} KN_i^* I\{BC_{i,k}^* > 0\} + \varepsilon_{3i}, \quad (3)$$

$$\varepsilon_{3i} \sim F_3, \quad ST_i = I\{ST_i^* \geq 0\}$$

where:

- $k = 1, 2, \dots, 6$ denotes the kind of business consulting (1 – organisation and planning, 2 – personnel management, 3 – marketing and sales, 4 – finance management, 5 – production and logistics management, 6 – strategic management).
- $BC_{i,k}$ equals 1 for firms which used the k -th variant of business consulting and 0 otherwise,
- KN_i equals evaluation of knowledge made by managers (0-3),
- ST_i equals 1 for firms possessing a development strategy and 0 otherwise,
- \mathbf{x}_i^{BC} , \mathbf{x}_i^{KN} and \mathbf{x}_i^{ST} denote vectors of exogenous variables and $\boldsymbol{\beta}^{BC}$, $\boldsymbol{\beta}^{KN}$, $\boldsymbol{\beta}^{ST}$ are vectors of consecutive parameters.

Table 3 presents the definitions of variables used in the model¹, while Table 4 presents the results of the estimation of the parameters of the equation of using business consulting, and Table 5 shows the results of the estimation of the parameters of the ‘Knowledge’ and ‘Strategy’ equation.

1 The ‘Gender’ variable and the variable associated with geographical region were considered. They turned out to be statistically insignificant and therefore are not included in the final specification.

Table 3. Definitions of variables used in the model. Bin stands for binary variables.

Variable	Definition
<i>E7</i>	Bin; 1, if employment exceeds 6
<i>UE</i>	Bin; 1, if the manger has a university education
<i>OM</i>	Bin; 1, if the owner is the managing person
<i>RE</i>	<i>Bin</i> ; 1, if the branch is "Real Estate"
<i>PROD</i>	Bin; 1, if the branch of the microenterprise is "Production"
<i>TRAN</i>	Bin; 1, for micro-enterprises in the field of "Transportation"
<i>TOUR</i>	Bin; 1, if the branch is "Tourism"
<i>GASTR</i>	Bin; 1, if the branch is "Gastronomy".
<i>EXP</i>	Number of years of experience of the manager.
<i>SERV</i>	Bin; 1, if the branch is "Services".
<i>ECON</i>	Bin; 1, if the manager has economic education.
<i>Sole_owner</i>	Bin; 1, if the legal form is the "Sole owner".
<i>Car_repairing</i>	Bin; 1, if the branch is "Car repairing"
<i>IT</i>	Bin; 1, if the branch is "IT"
<i>HC</i>	Bin; 1, if the branch is "Health care"
<i>ADV</i>	Bin; 1, if the branch is "Advertising"

Source: Own calculations.

Table 4. Results of the estimation of the parameters of the multivariate probit model. Marginal effects are given in brackets.

Dependent variable	$BC_{i,1}$ (Organisation and planning)	$BC_{i,2}$ (Personnel management)	$BC_{i,3}$ (Marketing and sales)	$BC_{i,4}$ (Finance management)	$BC_{i,5}$ (Production and logistics management)	$BC_{i,6}$ (Strategic management)
<i>Intercept</i>	-0.45***	-1.00***	-0.24*	-0.58***	-1.00***	-0.39***
<i>E7</i>	0.55*** (0.17)	0.51*** (0.11)	0.35** (0.13)	0.33* (0.10)	0.45** (0.09)	0.47*** (0.15)
<i>UE</i>	-	0.42*** (0.08)	0.18* (0.11)	0.20** (0.09)	-	0.22** (0.12)
<i>OM</i>	-0.48*** (-0.17)	-0.57*** (-0.11)	-0.46*** (-0.16)	-0.42*** (-0.15)	-0.60*** (-0.12)	-0.47*** (-0.16)
<i>ADV</i>	0.45* (0.18)	-	0.38* (0.16)	0.73** (0.22)	0.77** (0.19)	-
<i>IT</i>	-	-0.92*** (-0.15)	-0.13* (-0.04)	-0.13* (-0.05)	0.33* (0.07)	-
<i>Real_Estate</i>	-	-	0.89*** (0.46)	0.81*** (0.32)	-	0.63** (0.28)
<i>PROD</i>	-	-0.47* (-0.12)	-	-	0.45** (0.11)	-
<i>TRAN</i>	-	-	-	-	0.46* (0.09)	-
<i>HC</i>	-0.55** (-0.13)	-	0.41** (0.09)	-	-	-

*, ** and *** denote significance at 0.1, 0.05 and 0.01 level of significance, respectively. Values in brackets denote average marginal effects.

Table 5. Results of the estimation of the parameters of the knowledge and strategy equation.

Variable	Knowledge equation	Strategy equation
<i>ECON</i>	0.613***	-
<i>EXP</i>	0.033***	-
<i>SERV</i>	0.366***	-
cut1	-0.649	-
cut2	0.700	-
cut3	2.227	-
cons	-	1.012***
\widehat{KN}_i	-	0.588*** (0.20)
$\widehat{KN}_i \cdot 1\{BC_{i,5} > 0\}$	-	0.756** (0.23)
$\widehat{BC}_{i,3}$	-	-1.594* (-0.05)
$\widehat{BC}_{i,4}$	1.372*	1.544* (0.74)
$\widehat{BC}_{i,6}$	1.772***	0.917* (0.95)
<i>Car_repairing</i>	-	-0.863** (-0.21)
<i>Sole_owner</i>	-	0.417* (0.13)

*, ** and *** denote significance at 0.1, 0.05 and 0.01 level of significance respectively. Values in brackets in the strategy equation denote average marginal effects.

According to the results presented in Table 4, the probability of using business consulting is, ceteris paribus, larger for enterprises employing 7-9 persons in comparison with smaller ones. The largest differences (between enterprises employing 7-9 persons and smaller ones) in the probability of using business consulting are found for organisation and planning services (0.17) and strategic management business consulting (0.15), while in the case of production and logistics management business consulting, the analysed difference is the lowest and equals 0.09. This results from the fact that the larger the size of the enterprise, the greater the number of problems and needs it experiences (Jay/Schaper 2003). This translates into a higher demand for external advice. In fact, enterprises employing 1-6 persons often have limited financial resources and limited time to seek out advisory services. In our research, 80% of the enterprises listed

“lack of time” as the main reason for not using consulting, while 92.3% complained about “high costs”.

In the group of enterprises whose managers had graduated from university, the probability of using personnel management, marketing and sales management, finance management and strategic management business consulting is greater by 0.08, 0.11, 0.09 and 0.12, respectively, compared to enterprises with managers with secondary or vocational education. However, according to the results from Table 4, the level of education is not an important determinant of the propensity to use organisation and planning, or production and logistics business consulting. The positive relation between the level of education and the propensity to use business consulting is in line with the results of other studies (Richbell et al. 2006; Mole et al. 2013) and should be due to a higher awareness of the advantages of advisory services among well-educated managers. They receive appropriate knowledge about business consulting during their studies and seem to be more capable of using appropriate knowledge about suppliers of business consulting from the Internet or newspapers. Graduates seem to have more social contacts, which may help in finding information about business consulting. Among all the respondents who do not use business consulting, 71% listed “lack of information about business consulting” as the main reason.

When the owner of a company is the person managing, then his/her confidence in business consulting is lower and the probability of it being used is smaller by 0.11-0.17 (see Table 4). These owners do not want to employ a manager in order to avoid disclosing secret information. In fact, more than 30% of the respondents from enterprises not using business consulting listed “reluctance to disclose the enterprise’s secrets” as the main reason.

We have also found differences in using business consulting among branches. For example, transportation enterprises require specific knowledge concerning optimisation methods. Therefore, the probability of using production and logistics management business consulting is greater by 0.09 for these firms (Table 4). The probability of using production and logistics management business consulting is greater by 0.11 for production enterprises. Positive estimates of parameters for variables *ADV* and *Real_Estate* in Table 4 reflect the higher propensity to use different kinds of business consulting among advertising and real estate enterprises. A positive estimate of the parameter for *IT* variable in the $BC_{i,5}$ equation, and negative estimates in the equations of variables $BC_{i,2}$, $BC_{i,3}$, $BC_{i,4}$ inform us that IT companies tend to use more production and logistics management business consulting and less personnel management, marketing and sales, and finance management business consulting. Health care enterprises require more marketing and sales business consulting in order to increase demand for their products, while their demand for organisation and planning business consulting is lower.

According to the results of the estimation of the parameters of the knowledge equation (Table 5), positive estimates of parameters for variables $\widehat{BC}_{i,4}$ and $\widehat{BC}_{i,6}$ inform us that self-evaluation of knowledge in management is greater for firms using finance management and strategic management business consulting. This result confirms Hypothesis 1. It means that the necessary knowledge that managers lack can be acquired from the environment in the form of professional and independent services provided by advisers in the fields of strategic and finance management. This kind of business consulting should help managers and businesses realise their objectives in identifying and exploiting new opportunities, implementing changes and finding sources of financing (Yusoff et al. 2010). After benefiting from these business consulting services, managers are able to manage efficiently.

The self-evaluation of knowledge also increases with the wider experience of a manager, which is reflected by the positive estimate of the parameter for variable *EXP* (Table 5). This result is in line with expectations and the conclusions from other studies (Cumming/Fisher 2012). During the management process, managers face different barriers and they have to solve different problems. The longer they manage, the better their ability to solve. Therefore, more experienced managers have a better opinion about their management capabilities. Economic education has also a positive impact on the self-evaluation of knowledge (Table 5). This result is in line with expectations and the conclusions from other studies (Man 2012). A positive estimate of the parameter for the variable *SERV* reflects a higher self-evaluation of knowledge in management for services.

According to the results from the third column of Table 5, we see that Hypotheses 2, 3 a and 3 b are confirmed by the data. Though using marketing and sales business consulting decreases the probability of possessing a development strategy (a negative estimate of the parameter for variable $\widehat{BC}_{i,3}$), finance management and strategic management business consulting services have a positive impact on this probability, which is reflected by positive estimates of the parameters for variables $\widehat{BC}_{i,4}$ and $\widehat{BC}_{i,6}$. Our estimates are in line with the results obtained by Webber et al. (2010). Strategic management business consulting is very often aimed at preparing a development strategy. This justifies the indirect impact of business consulting on strategy development.

A positive and significant estimate of the parameter for variable \widehat{KN}_i in the strategy equation indicates that the better the knowledge of the manager, the greater the probability of having a development strategy. It seems that managers with a high self-evaluation of knowledge are aware of the fact that a good development strategy helps in market success; preparing a strategy is much easier for them than in the case of managers with poor knowledge. Another explanation of this result can be found in the self-efficacy literature (see: e.g. Khedhaouria et al.

2015). It is suggested there that high self-efficacy generally leads to high aspirations, persistence and the achievement of goals.

However, it should be noted that the 'knowledge-strategy' relation is not the same for all enterprises. The estimate of the parameter for this relation is greater by 0.756 in the case of micro-enterprises using production and logistics management business consulting in comparison with other micro-enterprises (Table 5). It means that hypothesis 3 b, on the moderating impact of business consulting on the 'knowledge-strategy' relation, is confirmed by the data. Enterprises using production and logistics management business consulting benefit more from the higher level of knowledge of their managers than other micro-enterprises. It means that the efficiency of using the advanced knowledge of managers requires business consulting. When both elements (knowledge and using business consulting) are combined, then an enterprise is more likely to reach a high level of developmental orientation.

After the estimation of the parameters of the multivariate ordered choice model, we verified the validity of the assumptions about the error term (homoscedasticity, symmetric distribution) and checked the goodness of fit (percentage of correct predictions, Pearson test, Hosmer-Lemeshow test). The results show that initial assumptions are valid and the goodness of fit is satisfactory. These results are available upon request.

The study was extended by measuring the efficiency of using business consulting (Table 6). It verified whether the scale of an enterprise, as well as the manager's level of knowledge, education and experience, have an impact on the level of efficiency of using business consulting.

Table 6. Evaluation of the efficiency of business consulting for micro-enterprises using it.

Evaluation of efficiency	Relation between the scale of an enterprise and the evaluation of efficiency			Relation between the evaluation of knowledge and the evaluation of efficiency		Relation between education and the evaluation of efficiency		Relation between the experience of a manager and the evaluation of efficiency	
	All micro-enterprises using business consulting	Enterprises employing 1 person and using business consulting	Enterprises employing 2-5 persons and using business consulting	Enterprises employing 6-9 persons and using business consulting	Managers with low or medium assessment of knowledge	Managers with high or very high assessment of knowledge	Managers with vocational or secondary education	Managers with experience below 20 years	Managers with experience of at least 20 years
Strongly efficient	36	5	22	9	16	20	16	20	15
Partly efficient	72	10	38	24	34	38	19	53	26
Inefficient	37	4	22	11	27	10	17	20	7
Testing independence	Chi-square = 1.12 p-value = 0.89			Chi-square = 7.95 p-value = 0.02		Chi-square = 5.60 p-value = 0.06		Chi-square = 4.85 p-value = 0.09	

Source: Own calculations.

The ratio of micro-enterprises benefiting from business consulting (in the fields of organisation and planning, personnel management, marketing and sales, finance management, production and logistics management, and strategic management) turned out to be high (74.5% of the enterprises benefited from using business consulting, while 1/3 of them evaluated consulting as highly efficient). The level of knowledge of managers and the level of efficiency of using business consulting are dependent. Using a 0.05 level of significance, we can conclude that the level of knowledge of managers is an important factor supporting the efficiency of consulting (see Table 6). Enterprises evaluating the outcome of business consulting as satisfactory were characterised by a higher level of managers' knowledge than those not satisfied with business consulting. This result confirms that both factors (knowledge of managers and consulting) should be combined in order to increase the probability of achieving market success. For the 'Experience – Efficiency', 'Scale – Efficiency' and 'Education – Efficiency' pairs, the features turned out to be independent (the appropriate p-values in Table 6 are larger than 0.05). A positive relation between using business consulting and performance of micro-enterprises is in line with the results obtained by, among others, Dobrea/Maiorescu (2015) and Ramsden/Bennett (2005).

Conclusions, implications and limitations

In this paper we used a multivariate discrete choice model in order to analyse the relations between using business consulting, self-evaluation of knowledge and possessing a strategy by micro-enterprises.

The analysis of the results obtained for the group of micro-enterprises confirms hypotheses 1, 2, 3 a, which concern the positive relations between business consulting and knowledge, business consulting and a strategy, as well as knowledge and a strategy respectively. Hypothesis 3 b, on the moderating impact of business consulting on the 'knowledge-strategy' relation, is confirmed by the data as well.

In addition, the results of the estimation indicate that the probability of using business consulting is greater for larger enterprises. We have also found differences in using business consulting among branches. The probability of using business consulting is larger in the group of enterprises whose managers graduated from university. When the owner of the company is the person who manages, then his/her confidence in business consulting is lower and the probability of its use is smaller. The assessment of the efficiency of the use of business consulting services in the surveyed enterprises proved to be low.

In line with expectations and the conclusions from other studies, the self-evaluation of knowledge also increases with the wider experience of the manager and his/her economic education (Slavec/Prodan 2012; Richbell et al. 2006). The probability of a high self-evaluation of knowledge in management is also higher

for services. According to the results of the estimation, strategic management and finance management business consulting services have the strongest impact on the level of knowledge and the probability of having a development strategy.

The paper has implications for the studies of the management of micro-enterprises and for the policy of support of micro-enterprises. It seems that in the 'knowledge-strategy-consulting' triangle, the manager's level of knowledge plays a key role and is the necessary and essential condition for creating a development strategy. Since a development strategy requires a high level of knowledge, this creates a demand for business consulting. An efficient support policy should increase cooperation between enterprises and business consultants. It should increase the level of knowledge of entrepreneurs thanks to the promotion of training programmes and the dissemination of good practice of cooperation between micro-enterprises and business consultants. Business consulting plays an important role in increasing managers' level of knowledge and creating a development strategy. However, the efficiency of using business consulting requires advanced knowledge on the part of managers. When both elements (knowledge and using business consulting) are combined, then an enterprise is more likely to reach a high level of development orientation. Moreover, cooperation between business consultants and micro-enterprises should be based on strengthening entrepreneurs' trust in advisory services, as well as preparing offers that increase their knowledge and ability to learn, and not on offering ready-made solutions.

Our results are based on data for Polish micro-enterprises, however, the general conclusions should provide appropriate interpretations for the support policy in other transition economies. This is due to the fact that the level of development of the sector of micro-enterprises in countries such as the Czech Republic or Hungary is similar to Poland, and the micro-enterprises in these countries have similar features to Polish micro-enterprises (see: Estrin/Mickiewicz 2010).

This paper has some limitations as it refers to specific circumstances in Poland which differ substantially from circumstances observed in the old EU members. The differences result from the much lower experience of micro-enterprises in Poland, the low level of development of business consulting and the lack of adjustment between the market of advisory services and micro-enterprises (Stawasz/Ropega 2014). The results of this investigation could be transferred to the sector of microenterprises in Central and Eastern European countries in the transition phase and not to different institutional settings (Smallbone/Welter 2010).

The investigation has a static character. The analysis of the results of the research based on a few periods would be more interesting. A comparison of the propensity to use business consulting in different years would show the tendency observed in Poland. Future research should include business results of micro-en-

terprises (earnings, gains). An analysis of the impact of the use of business consulting and the existence of a development strategy on the “hard” results of micro-enterprises would provide additional arguments.

References

- Ajmal, M.M./Nordstrom, F./Helo, P. (2009): Assessing the effectiveness of business consulting in operations development Project, in: *International Journal of Productivity and Performance Management*, 58, 6, 523-541.
- Anderson, A.R./Atkins, M.H. (2001): Business strategies for entrepreneurial small firms, in: *Strategic Change*, 10, 6, 311-324.
- Anderson, A.R./Ullach, F. (2014): The condition of smallness: how what it means to be small deters firms from getting bigger, in: *Management Decision*, 52, 2, 326 – 349.
- Bartlett, W./Buković, B. (2001): Barriers of SME Growth in Slovenia, in: *Economic Policy in Transition Economies*, 11, 2, 177-195.
- Beaver, G./Jennings, P. (2005): Competitive advantage and entrepreneurial Power. The dark side of entrepreneurship, in: *Journal of Small Business and Enterprise Development*, 12, 1, 9-23.
- Bennett, R.J./Robson, P.J. (1999): The use of external business advice by SMEs in Britain, in: *Entrepreneurship & Regional Development*, 11, 2, 155-180.
- Bennett, R.J./Robson, P.J. (2003): Changing use of external business advice and government support by SMEs in the 1990 s, in: *Regional Studies*, 37, 8, 795–811.
- Berry, A.J./Sweeting, R./Goto, J. (2006): The effect of business advisers on the performance of SMEs, in: *Journal of Small Business and Enterprise Development*, 13, 1, 33-47.
- Blackburn, R.A./Hart, M./Wainwright, T. (2013): Small business performance: business, strategy and owner-manager characteristics, in: *Journal of Small Business and Enterprise Development*, 20, 1, 8-27.
- Boter, H./Lundstrom, A. (2005): SME perspectives on business support services The role of company size, industry and location, in: *Journal of Small Business and Enterprise Development*, 12, 2, 244-258.
- Chaston, I. (2010): *Entrepreneurial management small firms*. London: SAGE.
- Chepurenko, A. (2011): Entrepreneurship and SME policies in fragile environments: the example of Russia, in: Welter, F./Smallbone, D. (eds.), *Handbook of Research on Entrepreneurship Policies in Central and Eastern Europe*, Cheltenham: Edward Elgar, 190-209.
- Cumming, D.J./Fisher, E. (2012): Publicly funded business advisory services and entrepreneurial outcomes, in: *Research Policy*, 41, 3, 467– 481.
- Delanoe, S. (2013): From intention to start-up: the effect of professional support, in: *Journal of Small Business and Enterprise Development*, 20, 2, 383-398.
- Dobrea, M./Maiorescu, I. (2015): Entrepreneurial Outcomes and Organisational Performance Through Business Coaching, in: *Amfiteatru Economic*, 17, 38, 247-260.
- Dyer, L.M./Ross, Ch.A. (2007): Advising the Small Business Client, in: *International Small Business Journal*, 25, 2, 130-151.
- Estrin, S./Mickiewicz, T. (2010): Entrepreneurship in Transition Economies: The Role of Institutions and Generational Change, in: *IZA Discussion Paper*, 4805.

- European Commission (2004): Regulation of the European Commission number 364/2004.
- Garnsey, E./Stam, E./Heffernan, P. (2006): New firms growth: exploring processes and path, in: *Industry and Innovation*, 13, 1, 1-20.
- Gill, A./Biger, N. (2012): Barriers to small business to Canada, in: *Journal of Small Business and Enterprise Development*, 19, 4, 656-668.
- Głodek, P./Łobacz, K. (2015): Use and utilization of business advice in small innovative firms, Paper presented at the University-Industry Interaction Conference, 24-26.6.2015 Berlin.
- Gray, C./Mabey, Ch. (2005): Management Development Key Differences between Small and Large Businesses in Europe, in: *International Small Business Journal*, 23, 5, 467-485.
- Hutchinson, V./Quintas, P. (2008): Do SMEs do Knowledge Management? Or Simply Manage what they Know?, in: *International Small Business Journal*, 26, 2, 131-154.
- Jaoun, A./Lasch, F. (2015): A new typology of micro-firm owner-managers, in: *International Small Business Journal*, 33, 4, 397-421.
- Jay, L./Schaper, M. (2003): Which advisers do micro-firms use? Some Australian evidence, in: *Journal of Small Business and Enterprise Development*, 10, 2, 136-143.
- Johnson, S./Webber, D.J./Thomas, W. (2007): Which SMEs use external business advice? A multivariate subregional study, in: *Environment and Planning A*, 39, 1981-1997.
- Kailer, N./Scheff, J. (1999): Knowledge management as a service: co-operation between small and medium-sized enterprises (SMEs) and training, consulting and research institutions, in: *Journal of European Industrial Training*, 23, 7, 319-328.
- Khedhaouria, A./Gurău, C./Torre's, O. (2015): Creativity, self-efficacy, and small-firm performance: the mediating role of entrepreneurial orientation, in: *Small Business Economics*, 44, 3, 485-504.
- Labas, A./Courvisanos, J./Henson, S. (2015): Business advisor knowledge and knowledge transference: a conceptual framework, in: *Proceedings of the 28-th Annual Conference of the Small Enterprise Association of Australia and New Zealand*.
- Man, T.W.Y. (2012): Developing a behaviour-centred model of entrepreneurial learning, in: *Journal of Small Business and Enterprise Development*, 19, 3, 549-566.
- McLarty, R. (2005): Entrepreneurship among graduates: towards a measured response, in: *Journal of Management Development*, 24, 3, 223-238.
- Moilanen, M./Ostbye, S./Woll, K. (2014): Non-R&D SMEs: external knowledge, absorptive capacity and product Innovation, in: *Small Business Economics*, 43, 2, 447-462.
- Mole, K.F./Baldock, R./North, D. (2013): Who Takes Advice? Firm Size Threshold, Competence, Concerns and Informality in a Contingency Approach, in: *ERC Research Paper*, 9.
- North, D./Baldock, R./Mole, K./Wiseman, J./Binnie, C. (2011): *Research to Understand the Barriers to Take up and Use of Business Support*, London: Centre for Enterprise and Economic Development Research.
- Ramsden, M./Bennett, R.J. (2005): The benefits of external support to SMEs, in: *Journal of Small Business and Enterprise Development*, 12, 2, 227-243.
- Richbell, S.M./Doug Watts, H./Wardle, P. (2006): Owner-managers and business planning in the small firm, in: *International Small Business Journal*, 24, 5, 496-514.
- Rivers, D./Vuong, Q.H. (1988): Limited information estimators and exogeneity tests for simultaneous probit models, in: *Journal of Econometrics*, 39, 347-366.

- Robson, P.J.A./Bennett, R.J. (2000): The use and impact of business advice by SMEs in Britain: an empirical assessment using logit and ordered logit model, in: *Applied Economics*, 32, 13, 1675-1688.
- Sciascia, S./D’Oria, L./Bruni, M./Larraneta, B. (2014): Entrepreneurial Orientation in low- and medium-tech industries: The need for Absorptive Capacity to increase performance, in: *European Management Journal*, 32, 5, 761-769.
- Singh, R.K./Garg, S.K. (2008): Strategy development by SMEs for competitiveness: a review, in: *Benchmarking: An International Journal*, 15, 5, 525 – 547.
- Slavec, A./Prodan, I. (2012): The influence of entrepreneur’s characteristics on small manufacturing debt servicing, in: *Journal for East European Management Studies*, 17, 1, 104-130.
- Smallbone, D./Welter, F. (2010): Entrepreneurship and the Role of Government in Post-Socialist Economies: Some Institutional Challenges, in: *Historical Social Research*, 35, 2, 320-333.
- Soriano, D.R. (2003): The Impact of Consulting Service on Spanish Firms, in: *Journal of Small Business Management*, 41, 4, 409-416.
- Stawasz, E./Ropega, J. (2014): Barriers and Risk Factors in the Development of Micro and Small Businesses in Poland, in: Gubik, A. S./Wach, K. (eds.): *International Entrepreneurship and Corporate Growth in Visegrad Countries*, Miskolc: University of Miskolc, 99-113.
- Storey, D.J. (1994): *Understanding the Small Business Sector*, London: Routledge.
- Strike, V.M. (2012): Advising the Family Firm: Reviewing the Past to Build the Future, in: *Family Business Review*, 25, 2, 156-177.
- Surdej, A./Wach, K. (2012): The dynamics of succession in family businesses in Poland – Empirical results, in: *Economia Marche Journal of Applied Economics*, 31, 2, 109-128.
- Suszyński, C. (2002): Doradztwo z zakresu zarządzania, jako czynnik rozwoju małych i średnich przedsiębiorstw w Polsce, in: Strużycki, M. (ed.): *Zarządzanie małym i średnim przedsiębiorstwem*, Warszawa: Difin, 143-192.
- Supyuenyong, V./Islam, N./Kulkarni, U. (2009): Influence of SME characteristics on knowledge management processes: The case of enterprise resource planning service providers, in: *Journal of Enterprise Information Management*, 22, 1, 63-143.
- Teece, D.J. (2014): The Foundations of Enterprise Performance: Dynamic and Ordinary Capabilities in an (Economic) Theory of Firms, in: *The Academy of Management Perspectives*, 28, 4, 328–352.
- Viljamaa, A. (2011): Exploring small manufacturing firms’ process of accessing external expertise, in: *International Small Business Journal*, 29, 5, 472-488.
- Vos, J.P. (2005): Developing strategic self-descriptions of SMEs, in: *Technovation*, 25, 9, 989-999.
- Webber, D.J./Johnson, S./Fargher S. (2010): Sector Variations in SMEs’ Use of External Business Advice, in: *Local Economy*, 25, 4, 339–355.
- Yusoff, N.H./Yaacob, R./Ibrahim, D. (2010): Business Advisory: A Study on Selected Micro-sized SMEs in Kelantan, Malaysia, in: *International Journal of Marketing Studies*, 2, 2, 245-257.